

National Electronic Equipment Management & Compliance Assistance Workshop

**September 23-24, 2002
in Atlanta**

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Why Are We Concerned With Electronics?

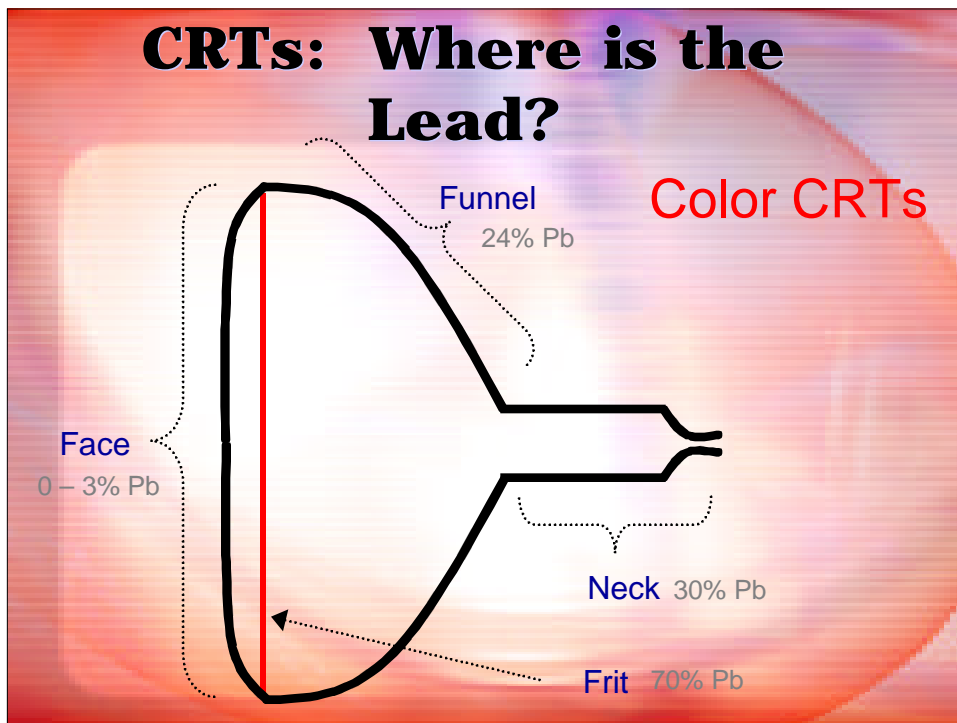


- 20 Million personal computers become obsolete in 1998
- Only 13% were reused or recycled
- By 2005, 250 Million will become obsolete

More Concerns

- Retain little or no resale value
- May become subject to landfill bans
- Decrease in product life cycles
- Difficult and costly to disassemble for reuse and recycling
- Contain hazardous materials - lead, mercury, hexavalent chromium, brominated flame retardents

CRTs: Where is the Lead?



EPA's Approach

- Regulatory Streamlining
- Research
- Education
- Product Stewardship
 - NEPSI - Multi-stakeholder Discussions
 - Partnership on Design

NEW Proposed CRT Rule

- To encourage greater reuse, recycling and better management of cathode ray tubes (CRTs): a rapidly growing waste stream.
- Rationale: encourage collection, glass-to-glass recycling and better management.
- EPA's proposed rule: **important first step** in dealing with issues posed by end-of-life electronics.

Who's Regulated and Who's Not?



NOT Regulated

- **Households:** may send used monitors to any collector for recycling or disposal.
- **CESQGs:** Non-residential generators of less than 100 kg. per month (about 7 or 8 computers) are not subject to most Subtitle C standards.
- User who sends CRTs to a collector or reseller for **potential reuse or repair:** if the CRTs may be reused, they are products, not wastes.

Not Regulated continued....

- Intact, off-spec CRTs sent for **recycling**: these are **products**, not wastes.
- **Non-CRT electronic materials**:
 - Whole used circuit boards and shredded circuit boards are **not** regulated.
 - Other electronics: No reason to think these are hazardous, but EPA is examining.

Regulated With Streamlined Requirements:

- **Used Broken CRTs Sent for Recycling**
 - “Conditionally excluded” if they comply with universal waste-type packaging and labeling requirements for storage and shipment.
 - **No** speculative accumulation.

Regulated With Streamlined Requirements

continued...

- **Glass Processors**

- Must store broken CRTs indoors or in accordance with universal waste-type packaging and labeling, no speculative accumulation.
- May not use temperatures high enough to volatilize lead.

Regulated With Streamlined Requirements

continued...

- **Processed Glass:**

- **If** sent to a glass-to-glass manufacturer or lead smelter, **not** regulated.
- **If** sent to other kinds of recycling, **must** comply with universal waste-type packaging and labeling.
- **No** speculative accumulation.

Regulated under FULL Subtitle C

Disposal in a landfill or incinerator, unless the disposer is a household or a CESQG.

Summary of Comments

- **Overall**
 - **Industry is pro-exemption**
 - **States/NGOs are pro-Universal Waste Rule**
- **States concerns include:**
 - **speculative accumulation (stockpiling)**
 - **already include CRT under their UWR**
 - **lack of standards and less monitoring**
 - **decreases incentive for green product design**

More on Comments.....

- **Misc. concerns - all representatives:**
 - Giving exclusions to only glass-to-glass and smelters
 - Disposal loopholes for small businesses and households
 - Market concerns
 - Circuit boards should be hazardous waste
 - Definitions – used, broken, CRT
- **EXPORTS**

BIG QUESTION?
When will it be final??



EPA: Research

- Region 4 and 5 Partnership to fund further research at the University of Florida
- Looking beyond the CRT
- Whole monitors, CPU, peripherals
- Spurred other interests at Uoff
 - VCRs, Cell Phones, etc.

EPA: Education

- Electronics Fact Sheets
 - www.epa.gov/epr/products/efed.html
 - www.epa.gov/wastewise/wrr/updates.htm
- Electronic Workshops/Conferences
 - Region 4 - Hosting National Compliance Assistance Workshops in Atlanta on September 22-23
 - Region 4 - Hosting Mobile, Alabama Compliance Assistance Workshop and Collection Event on Nov. 14-15

Key Web Sites

- EPA
 - WasteWise - www.epa.gov/wastewise
 - Extend Products Responsibility (EPR)
www.epa.gov/epr
 - Design for the Environment (DfE)
www.epa.gov/dfe
- SWIX www.ElectronicXchange.org
- University of Florida
 - www.enveng.ufl.edu/homepp/townsend/research/CRT/CRTMain.html

More Key Websites.....

- **Florida DEP**
 - www.dep.state.fl.us/waste/categories/electronics
- **Georgia P2 Assistance Division**
 - www.dnr.state.ga.us/p2ad/comp_recycle.html
- **North Carolina Division P2 and Environmental Asst.**
 - www.p2pays.org/electronics/
- **Electronics Industry Association Consumer Education Initiative**
 - www.eiae.org
- **National Cristina Foundation**
 - www.cristina.org

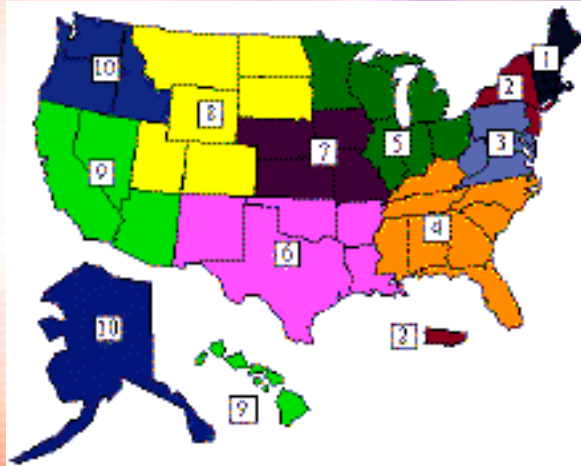
More Key Websites.....

- **Share the Technology**
 - www.sharetechnology.org/
- **Silicon Valley Toxics Coalition**
 - www.svtc.org/
- **International Association of Electronics Recyclers (IAER)** - www.iaer.org
- **Students Recycling Used Technology**
 - www.strut.org
- **Learning and Information Networking for Community via Technology**
 - www.linct.org
- **ElectronicsRecycling.org**
 - www.electronicsrecycling.org

Conclusion

- **Continue to focus on toxicity issues**
- **NESPI dialogue - Federal legislation?**
- **More focus on export issues**
- **Electronics industry - greener design?**
- **Retails, thrifts and charities will continue to show increased their interest.**
- **Still a Moving Target: Proliferation of new products, throw always and technology is changing**
- **More public concern, push for 'greener' design and recycling options**

U.S. EPA Regions



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